IN THE CLAIMS

Please cancel claims 34-49 without prejudice. Claims 1-33 were previously canceled without prejudice. Please amend claims 50-69.

1-33. (Canceled)

34-49. (Canceled)

50. (Currently Amended) A method of designing an integrated circuit comprising the steps of:

(a) specifying a communication block for the integrated circuit, including the locations of a plurality of unspecified androgynous interfaces;

(b) identifying functional blocks to comprise the integrated circuit;

(c) positioning functional blocks to form a layout of the integrated circuit so that distances of connections between functional blocks and distances of connections between functional blocks and unspecified androgynous interfaces are minimized; and

(d) adapting each unspecified androgynous interface to perform as a target or as an initiator based on the layout, the step of adapting being performed after the functional blocks are positioned to form the layout of the integrated circuit.

51. (Currently Amended) The method of claim 50, the step of adapting each unspecified androgynous interface being performed dynamically ~~comprising dynamically adapting each unspecified androgynous interface to perform as a target or as an initiator~~.

52. (Currently Amended) The method ~~model~~ of claim 50, further comprising the step of

switching an androgynous interface between performing as the ~~a~~ target and performing as the ~~an~~ initiator.

53. (Currently Amended) The method of claim 50, wherein an androgynous interface is adapted to perform as the ~~a~~ target of a first communication, further comprising the step of

switching the interface from the ~~a~~ target of the first communication to the ~~an~~ initiator of a subsequent communication.

54. (Currently Amended) The method of claim 50, wherein an androgynous interface is adapted to perform as the ~~an~~ initiator of a first communication, further comprising the step of

switching the interface from the ~~an~~ initiator of the first communication to the ~~a~~ target of a subsequent communication.

55. (Currently Amended) The method of claim 50, further comprising the step of

switching each androgynous interface between performing as the ~~a~~ target and performing as the ~~an~~ initiator.

56. (Currently Amended) The method of claim 55, wherein each androgynous interface is adapted to perform as the ~~a~~ target of a first communication and switches to perform as the ~~an~~ initiator of a subsequent communication.

57. (Currently Amended) The method of claim 55, wherein each androgynous port is adapted to perform as the ~~an~~ initiator of a first communication and switches to perform as the ~~a~~ target of a subsequent communication.

58. (Currently Amended) The method of claim 50, wherein each unspecified androgynous interface is adapted to perform as the ~~a~~ target or the ~~an~~ initiator based on a ~~the~~ type of interface that is required.

59. (Currently Amended) The method of claim 50, wherein each unspecified androgynous interface is adapted to perform as the ~~a~~ target and ~~or~~ the ~~an~~ initiator at different times.

60. (Currently Amended) The method of claim 50, further comprising the step of

finalizing the layout of the integrated circuit.

61. (Currently Amended) The method of claim 60, wherein each unspecified androgynous interface is adapted to perform as the ~~a~~ target or the ~~an~~ initiator after the layout of the integrated circuit is finalized.

62. (Currently Amended) The method ~~model~~ of claim 50, the step of adapting each unspecified androgynous interface further comprising the step of

setting a register of an androgynous interface so that the interface performs as the ~~a~~ target or the ~~an~~ initiator.

63. (Currently Amended) The method of claim 50, the step of adapting each unspecified androgynous interface further comprising the step of

performing a logic synthesis that deletes a state machine configuration that is not used for actual operation of the integrated circuit so that a ~~the~~ remaining state machine adapts the interface to perform as the ~~a~~ target or the ~~an~~ initiator.

64. (Currently Amended) The method ~~model~~ of claim 50, the step of adapting each unspecified androgynous interface further comprising adapting each unspecified androgynous interface according to a logic value of a pin of the interface being set to a "1" or a "0".

65. (Currently Amended) The method of claim 50, wherein the step of positioning functional blocks to form the layout minimizes a footprint of the integrated circuit.

66. (Currently Amended) The method of claim 50, wherein the step of positioning functional blocks does not account for a type of interface.

67. (Currently Amended) The method of claim 50, the specified ~~specifying the~~ communication block ~~comprising specifying a communication block that is~~ being part of a foundation block that includes a processor.

68. (Currently Amended) The method ~~model~~ of claim 50, wherein each unspecified androgynous interface is adapted to perform as the ~~a~~ target or as the ~~an~~ initiator without adhering to a specification of a component library.

69. (Currently Amended) The method ~~model~~ of claim 50, wherein each unspecified androgynous port interface is bi-directional.